Medical Lib.
Wm. & W.

CONTENTS

No. 1, JULY, 1941

The Role of Certain Vitamins and Metallic Elements in the Nutrition of the Crown-Gall Organism. F. C. McINTIRE, A. J. RIKER AND W. H. PETERSON 1

The Photoelectric Titration of Pneumococcal Capsular Polysaccharide. SAMUEL CHARLES BUKANTZ, ANITA COOPER AND JESSE G. M. BULLOWA .. 15

The Elaboration of Soluble Capsular Polysaccharide by Pneumococcus III In Relation to Growth Phases *in vitro*. SAMUEL CHARLES BUKANTZ, ANITA COOPER AND JESSE G. M. BULLOWA 29

The Production of Gluconic Acid and 2-Keto-Gluconic Acid from Glucose by Species of *Pseudomonas* and *Phytomonas*. L. B. LOCKWOOD, B. TABENKIN AND G. E. WARD 51

Further Studies on the Purification of Poliomyelitis Virus. PAUL F. CLARK, A. F. RASMUSSEN, JR. AND WELDON C. WHITE 63

Bacteria of Antarctica. CHESTER A. DARLING AND PAUL A. SIPLE 83

The Adaptive Enzymes of Certain Strains of Yeasts. HARRY E. RHOADES .. 99

Studies on the Action of Wetting Agents on Microorganisms. I. The Effect of pH and Wetting Agents on the Germicidal Action of Phenolic Compounds. E. J. ORDAL, J. L. WILSON, AND A. F. BORG 117

Some Effects of Visible Radiation on Pigmentation of *Serratia marcescens*. K. W. KREITLOW 127

Proceedings of Local Branches of the Society of American Bacteriologists, Eastern New York, Central New York, North Central, Ohio, and Washington Branches 133

No. 2, AUGUST, 1941

Studies on the Nutritive Requirements of Bacteria. D. W. WOOLLEY 155

Studies on the Metabolism of Leptospira. WILLIAM D. ROSENFELD AND MERIDIAN R. GREENE 165

The Function of Nicotinic Acid in Bacterial Metabolism. I. J. Kligler and N. GROSSOWICZ 173

The Morphology and Cytology of *Myxococcus xanthus*, N. Sp. J. M. BEEBE 193

A Method for the Evaluation of Water Soluble and Water Miscible Fungicides Used in the Prevention of the Spread of "Athlete's Foot." E. G. KLARMANN, V. A. SHTERNOV AND S. M. COSTIGAN 225

Actinomyces antibioticus, a New Soil Organism Antagonistic to Pathogenic and Non-pathogenic Bacteria. SELMAN A. WAKSMAN AND H. BOYD WOODRUFF 231

Bacterial Morphology as Shown by the Electron Microscope. II. The Bacterial Cell-wall in the Genus *Bacillus*. STUART MUDD, KATHERINE POLEVITZKY, THOMAS F. ANDERSON AND LESLIE A. CHAMBERS 251

Spore Formation among the Anaerobic Bacteria. I. The Formation of Spores by *Clostridium sporogenes* in Nutrient Agar Media. I. KAPLAN AND JOHN W. WILLIAMS 265
Proceedings of Local Branches of the Society of American Bacteriologists, New Jersey, Southern California, Missouri Valley, Indiana and Kentucky, and Michigan Branches 283

No. 3, SEPTEMBER, 1941

A Direct Smear Method for Counting Microscopic Particles in Fluid Suspension. SHU-HSIEN WANG 297
Studies on Microorganisms in Simulated Room Environments. I. A Study of the Performance of the Wells Air Centrifuge and of the Settling Rates of Bacteria through the Air. EARLE B. PHELPS AND LEON BUCHBINDER ... 321
Studies on Microorganisms in Simulated Room Environments. II. The Survival Rates of Streptococci in the Dark. LEON BUCHBINDER AND EARLE B. PHELPS 345
Studies on Microorganisms in Simulated Room Environments. III. The Survival Rates of Streptococci in the Presence of Natural, Daylight and Sunlight, and Artificial Illumination. LEON BUCHBINDER, MATHILDE SOLOWEY AND EARLE B. PHELPS 353
Biological and Immunological Studies of *Listerella*. L. A. JULIANELLE 367
The Identification of *Erysipelothrix* and its Relation to *Listerella*. L. A. JULIANELLE 385
Microcinematography of the Agglutination of Typhoid Bacilli. ADRIANUS PIJPER 395
Electrophoresis Studies on *Brucella*. T. W. STEARNS AND M. H. ROEPKE ... 411
Proceedings of Local Branches of the Society of American Bacteriologists, Eastern Pennsylvania Branch 431

No. 4, OCTOBER, 1941

The Main Outlines of Bacterial Classification. R. Y. STANIER AND C. B. VANNIEL 437
The Demonstration of Non-specific Components in *Salmonella paratyphi* A by Induced Variation. D. W. BRUNER AND P. R. EDWARDS 467
Physiological Characteristics of Lactic Acid Bacteria Near the Maximum Growth Temperature. I. Growth and Acid Production. ROBERT M. STERN AND W. C. FRAZIER 479
Physiological Characteristics of Lactic Acid Bacteria Near the Maximum Growth Temperature. II. Studies on Respiration. ROBERT M. STERN AND W. C. FRAZIER 501
The Carboxylase-Cocarboxylase System of Fusaria. ALFRED A. TYTELL AND BERNARD S. GOULD 513
Studies on Marine Agar-Digesting Bacteria. R. Y. STANIER 527

No. 5, NOVEMBER, 1941

Studies on the Alcohol Tolerance of Yeasts. WILLIAM D. GRAY 561
A Morphological Study of *Streptococcus fecalis*. GEORGES KNAYSI 575
On the Use of Basic Dyes for the Demonstration of the Hydrolysis of Fat. GEORGES KNAYSI 587

Further Studies on the Serological Reactions of the Soluble Antigens of Infectious Myxomatosis. J. deCastro Teixeira and J. E. Smadel.... 591
The pigments of *Micrococcus tetragenus*. VI. *Micrococcus tetragenus* Infection. Hobart A. Reimann and Carl M. Eklund..... 605
Studies on Microorganisms in Simulated Room Environments. IV. The Effect of Survival on the Pathogenic Properties of Streptococci: Mouse Virulence. Leon Buchbinder, Mathilde Solowey and Morris Solotorovsky..... 615
Studies on Microorganims in Simulated Room Environments. V. The Effect of Survival on the Pathogenic Properties of Streptococci: Properties other than Mouse Virulence. Leon Buchbinder, Morris Solotorovsky, Mathilde Solowey and Jean Ruhl-Koupal..... 631
Studies on Microorganisms in Simulated Room Environments. VI. The Disappearance of Vaccinia Virus from Air. Leon Buchbinder and Morris Solotorovsky..... 635
Stability of a Strain of *Salmonella*. Walter L. Kulp, Raymond Young and Ralph Houlihan..... 643
The Inhibition of the Spreading Growth of *Proteus* and other Bacteria to Permit the Isolation of Associated Streptococci. Herman C. Lichstein and Marshall L. Snyder..... 653
Occurrence of the Aldolase and Isomerase Equilibria in Bacterial Metabolism. M. F. Utter and C. H. Werkman..... 665
Studies on the *Listerella* Group. I. Biochemical and Hemolytic Reactions. P. C. Harvey and J. E. Faber..... 677
The Preservation of Pneumococcus by Freezing and Drying. E. G. Stillman..... 689

No. 6, December, 1941

A Note to the Contributors of Papers to the Journal of Bacteriology, Bacteriological Reviews and Journal of Immunology..... 695
A Comparative Study of the Friedländer and Coli-aerogenes Groups. I. Morphological and Cultural Characteristics, with Emphasis on Variation. Elizabeth Osterman and Leo F. Rettger..... 699
A Comparative Study of Organisms of the Friedländer and Coli-aerogenes Groups. II. Pathogenicity, Biochemical Reactions, and Serological Relationships. Elizabeth Osterman and Leo F. Rettger..... 721
The Effect of Dissociation on the Electrophoretic Mobility of *Brucella*. T. W. Stearns and M. H. Roepke..... 745
A Study of the Bacteria Associated with Thirty Species of Insects. Edward A. Steinhaus..... 757
Value of Pigmentation in Classifying Actinomycetes. A Preliminary Note. H. J. Conn and Jean E. Conn..... 791
Bacteriolytic Properties of *Actinomyces*. Maurice Welsch..... 801
Proceedings of Local Branches of the Society of American Bacteriologists, New Jersey and Connecticut Valley Branches..... 815